Claims

1. A method of producing a lightning diverter for conducting a lightning-induced electrical current and to be placed on structures such as wings on wind turbines, aircraft components, radomes and the like with the purpose of lightning protection where the method comprises the steps of:

- making of a plurality of holes (102) in a plate (101) of an electrically conductive material,
- filling said holes (102) at least partly with one or more electrically non-conductive materials,
- dividing the plate (101),

thereby obtaining a layer of electrically non-conductive material (201) with a plurality of isolated segments of electrically conductive material (105).

2. A method of producing a lightning diverter according to claim 1 where the plate is divided into strips (103).

3. A method of producing a lightning diverter according to one or more of the claims 1-2 where the holes (102) in the plate (101) are made by cutting, preferably by laser cutting.

4. A method of producing a lightning diverter according to one or more of the claims 1-2 where the holes (102) in the plate (101) are made by punching.

5. A method of producing a lightning diverter according to one or more of the claims 1-4 where the electrically conductive material is preferably a metal.

6. A method of producing a lightning diverter according to one or more of the claims 1-5 where the electrically non-conductive material is preferably an adhesive.

7. A method of producing a lightning diverter according to one or more of the claims 1-6 where the holes (102) in the plate (101) are at least partially filled by pressing the plate (101) down into a layer of electrically non-conductive material (201).

8. A method of producing a lightning diverter according to one or more of the claims 1-7 where the method further comprises applying a layer of material (501) increasing the stiffness of the lightning diverter in the direction along the strip (103) and a further layer of electrically non-conductive material (502) to the first layer of electrically non-conductive material (301).

9. A method of producing a lightning diverter according to one or more of the claims 1-8 where the method further comprises applying a double sided adhesive tape (401) to the outermost layer of electrically non-conductive material.

10. A lightning diverter for conducting a lightning-induced electrical current and to be placed on structures such as blades on wind turbines, aircraft components, radomes and the like with the purpose of lightning protection, where the diverter comprises a layer of electrically non-conductive material (201) with a plurality of isolated segments of electrically conductive material, (105) and where the diverter is **characterized in** that the exposed parts of said segments are described by concave shapes.

11. A lightning diverter according to claim 10 **characterized by** the diverter being in the shape of a strip (103).

12. A lightning diverter according to one or more of the claims 10-11 **characterized by** a number of the isolated segments (105) being cross-shaped.

13. A lightning diverter according to one or more of the claims 10-12 **characterized by** a number of the isolated segments (105) being star-shaped.

14. A lightning diverter according to one or more of the claims 10-13 **characterized by** comprising a layer of material (501) increasing the stiffness of the lightning diverter in the direction along the strip (103).

15. A lightning diverter according to one or more of the claims 10-14 **characterized by** comprising an outermost layer of double sided adhesive tape (401).

16. A lightning diverter according to one or more of the claims 10-15 **characterized by** the segments (105) being preferably made of metal.

17. A lightning diverter according to one or more of the claims 10-16 **characterized by** the electrically non-conductive material (201) being preferably made of an adhesive.

18. A blade for a wind turbine, the blade comprising a fiber reinforced blade shell (1001) and means for grounding a lightning-induced electrical current, where the blade is equipped with at least one diverter strip (103) produced according to one or more of the claims 1-9.

conductive fibres, such as carbon fibres or steel fibres. The upper principal laminate 1101 has a width as indicated by the hatched lines 1102. As illustrated, a diverter strip 103 stretches from a receptor 1005 and across the principal laminate 1101, so that it is shielded from a lightning stroke in that an antenna-like effect is achieved by the diverter strip. In the illustrated embodiment the receptor 1005 is placed at a distance from the principal laminate 1101.

It should be noted that the above-mentioned embodiments illustrate rather than limit the invention, and that those skilled in the art will be able to design many alternative embodiments without departing from the scope of the appended claims. In the claims, any reference signs placed between parentheses shall not be construed as limiting the claim. The word 'comprising' does not exclude the presence of other elements or steps than those listed in a claim. The invention can be implemented by means of hardware comprising several distinct elements, and by means of a suitably programmed computer. In a device claim enumerating several means, several of these means can be embodied by one and the same item of hardware. The mere fact that certain measures are recited in mutually different dependent claims does not indicate that a combination of these measures cannot be used to advantage.